

# **EXPLORING MENTORS' INTERPRETATION OF TERMINOLOGY AND LEVELS OF COMPETENCE WHEN ASSESSING NURSING STUDENTS: AN INTEGRATIVE REVIEW**

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## ABSTRACT

Objectives: The purpose of this integrative review is to evaluate the empirical and theoretical literature on the challenges mentors face in interpreting and assessing levels of competence of student nurses in clinical practice.

Design: An integrative review of the literature.

Data sources: An extensive and systematic literature search was conducted covering the period 1986-September 2016 across twelve databases covering health and education related publications. Grey literature was searched from wide relevant sources.

Review methods: Sources were eligible for review when they referred to mentor's interpretation or assessment of student nurses' level of competence in practice settings. Methodological rigor of the included studies was evaluated with the Mixed Methods Appraisal Tool.

Results: After screening 1951 records by titles, abstracts and full text, 8 were selected for review. The methodological quality of the studies was moderate. The studies reported:

- Difficulties in the language used to describe competencies.
- The challenge of distinguishing between different levels of competence.
- Lack of clear and constructive feedback to students.

Accurate and fair assessment of students is impeded by a lack of transparent and explicit criteria.

Conclusions: There is a need to establish a transparent and common language to distinguish between and facilitate interpretation of different levels of competence. Well-designed rubrics might offer the solution to the challenges faced in practice-based assessment and necessitates further research into their use.

## KEY WORDS

Integrative review  
Students  
Mentors  
Practice-based assessment  
Competence  
Interpretation  
Feedback  
Rubric

## INTRODUCTION

Pre-registration education programmes for health professionals (HPs) combine theoretical and practice-based elements. Internationally, concerns exist related to lack of reliability and validity when assessing HPs during practice placements.

Assessing the practice element against competencies set by professional bodies is essential to evaluate that learners have developed an adequate level of competence, are safe to practice and to protect the public (Trede and Smith, 2012; Yorke, 2005). In the UK, the Practice Assessment Document (PAD) requires nursing students to be assessed by mentors against competencies set by the Nursing and Midwifery Council. This Integrative review (IR) collates empirical and theoretical literature to provide a broader, deeper insight into the challenges mentors face in interpreting and assessing levels of competence and proposes a potential solution.

## BACKGROUND

The complexity of assessing clinical practice has challenged educators for decades. A plethora of studies raise concerns regarding lack of reliability and validity of HP students' assessment in practice placements, including occupational therapy (Ilott and Murphy, 1997), social work (Tanicala *et al.*, 2011; Eno and Kerr 2013; Rawles, 2013), medicine (Cleland *et al.*, 2008; Dudek *et al.*, 2005; Paisley *et al.*, 2005; Govaerts *et al.*, 2013; Sabey and Harris, 2012) and dentistry (Licari and Chambers, 2008; Willis, 2009).

Internationally, nursing literature also consistently identifies concerns that judgments in practice-based assessments are subjective and do not always accurately reflect students' performance with reports from the UK (Black, 2011; Duffy, 2003; Hunt, 2012), Australia (Glover *et al.*, 1997; Miller, 2010), United States (Cangelosi *et al.* 2009; DeBrew and Lewallen, 2014), New Zealand (Gallagher *et al.*, 2012; Whiteford, 2007), Ireland (Bradshaw *et al.*, 2012; Butler *et al.*, 2011, Cassidy *et al.*, 2012), Italy (Finch and Poletti, 2013), Malaysia (Enrico and Chapman, 2011), Scandinavia (Jokelainen *et al.*, 2013); Singapore (Jinks and Harron-Iqbal, 2002) and Canada (Larocque and Luhanga, 2013; Yonge *et al.*, 2011). Inconsistencies in the processes used to assess student nurses vary between countries and institutions, and the methods used have rarely been systematically assessed for reliability and validity (Helminen *et al.*, 2016).

Numerous barriers to effective assessment of the practice element are reported in the literature. A major barrier relates to familiarity with the PAD, with particular reference to the terminology being ambiguous, and the language used is vague and contains too much academic jargon (Brown, 2000; Butler *et al.*, 2011; Cassidy *et al.*, 2012; Dolan, 2003; Duffy, 2003; Duffy and Watson, 2001; Fahy *et al.*, 2011; Miller, 2010; McCarthy and Murphy, 2008; Neary, 2001; Norman *et al.*, 2002; Scholes, *et al.*, 2004). Consequently, mentors experience problems translating and applying assessment outcomes into observable practice activities in turn leading to problems in accurately assessing learning and assigning grades. Mentors and students have reported spending significant time trying to work out what the competency statements mean rather than assessing the student against them (Neary, 2001; Scholes, *et al.*, 2004), resulting in them negotiating their own objectives and learning outcomes. Thus, when required to justify their decisions regarding students not meeting competency standards, mentors struggle to prove their concerns are justified (Duffy, 2003, Brown *et al.*, 2012; Gainsbury, 2010).

Difficulties in discriminating between different levels of practice are also acknowledged in the literature; mentors struggle to identify the benchmark of

what constitutes a pass or a fail (Butler *et al.*, 2011; Heaslip and Scammell, 2012), most noticeably when dealing with borderline students (Duffy, 2003). This partly relates to the complexity and lack of consensus on what 'competent' means but there is also evidence that mentors have differing views about what is considered an 'acceptable' standard of competence that a student needs to pass (Cassidy, 2009). Neary (2001) found that current grading tools provide generic descriptors that lack specificity so remain open to interpretation. The lack of transparent criteria against which students' competence can be judged not only influences the accuracy of completing students' documents, but also how mentors deliver effective and constructive feedback (Fitzgerald *et al.*, 2010).

## OBJECTIVES

This IR systematically synthesises and evaluates empirical and theoretical literature on the challenges mentors face in interpreting and assessing levels of clinical competence in pre-registration nursing.

## METHOD

The review adopted the IR framework (Table 1) of Whitemore and Knafl (2005) who modified Cooper's (1998) framework for systematic reviews and meta-analysis to make it suitable for IRs. The strength of IRs is their rigorous methodology. Their distinctive feature is drawing conclusions from empirical studies and theories to enhance the holistic understanding of the topic in question. This feature made the IR an appropriate approach by creating a more well-rounded evidence review (Whitemore and Knafl, 2005).

Table 1. Whitemore and Knafl's (2005) IR framework stages
1. Problem identification
2. Literature search
3. Data evaluation
4. Data analysis
5. Presentation

### Stage 1: Problem identification

The problem identification process includes the development of conceptual and operational definitions of variables to be examined. A scoping exercise was undertaken locally across one Higher Education Institution (HEI) and five hospitals to seek the views of stakeholders representing key roles in the provision of practice education including academics, mentors, students and clinical practice facilitators. They identified issues with significant impact on the quality of the assessment process and outcome (Table 2). These were mirrored in international literature so merited further analysis as the basis for the IR variables.

Table 2. The variables identified in the scoping exercise	
	• Understanding/familiarity with the PAD
	• Understanding of competency/criteria
	• Understand what need to be demonstrated to be worthy of a pass/ identifying levels.
	• Provision of accurate and constructive feedback
	• Inconsistency between assessors

### Stage 2: Literature search

Since the focus was educational rather than clinical, the search question in this review employed the 'Best Evidence Medical and health professional Education' (BEME) guidelines for reviews undertaken in medical and health care education. BEME focuses on health-related educational searching methods and recommends search questions where the queries can be broken down into Participants, Educational aspects and Outcomes (PEO).

A broad identification of search terms was conducted through examining each essential subject component and identifying synonyms, alternative spellings, and related terms. For example, synonyms to the terms 'mentor' and 'student' were utilised to expand and include international alternatives. Synonyms are detailed in Table 3.

Table 3. PEO synonyms used to expand the essential terms			
Population	Exposure	Outcome	Not
Mentor*	"Work based assessment"	Interpret*	Patient*

Assessor*	"Workplace assessment"	Language*	"Patient* assess*"
Preceptor*	"Workplace based assessment"	Terminolog*	"tool validat*"
Supervisor*	"Practice-based assessment"	"Level* of competenc*"	OSCE*
Trainer*	"Performance assessment"	"Level* of performance"	Simulate*
"Clinical educator*"	placement*	Discriminat*	Classroom*
Undergraduate*	"Clinical placement**"	Reliabl*, Valid*, Fair*,	assess*
Student*	"Student placement**"	Robust*, Rigor*,	
Learner*	"Practice placement**"	Effectiv*, Accurat*,	
Trainee*	"education* measurement**"	Sensitiv*, Specific*	
Mentee*	"Practice document"	Capabil*, Competenc*	
Preceptee*	"Clinical competenc*"	Fitness*	
	"performance indicator**"	"Fitness for practice"	

Table 4 shows the inclusion and exclusion criteria. Articles had to be related to any of the variables identified in the scoping exercise shown in Table 2. Articles were selected for review if they referred to mentors' interpretation of clinical competence and/or exploring mentors' assessment of students' competence levels in practice settings in nursing.

Most databases were accessed through 'EBCS Ohost' (Elton B. Stephens Co) as it facilitates searching several databases simultaneously and employs wildcards, truncation symbols, Boolean operators and automatic removal of duplicates.

The search scope was to identify all articles published in English language since 1986 (the formal introduction of mentoring in the UK). International literature was considered, however articles were excluded if the practice assessment process differed from the nature of mentoring student nurses in the UK where practice-based mentors have the responsibility to determine students' competence and ultimately to become registered nurses. Therefore, studies were excluded if lecturers, clinical tutors, practice educators or clinical teachers conducted the assessment or the role of the practice mentor was that of an adviser or facilitator of learning only.

Articles were also excluded if the assessment was classroom-based or simulated practice as such practice is usually assessed by HEI staff and would not reflect the authenticity of real life practice assessment. Studies that introduced tools as a strategy to support assessment were included. However, tool validation studies were excluded, since their focus is on

reporting the tool's validity and reliability properties rather than examining the quality of mentors' assessment.

Table 4. Inclusion and exclusion criteria	
Inclusion	Exclusion
Nursing 1986 -present. Practice/clinical based assessment. Practice-based mentors undertook the assessment. Tools and process of conducting the assessment. All publications explicitly related to the review questions and the process category identified in the scoping exercise: <ul style="list-style-type: none"> <li>• Understanding/familiarity with the PAD</li> <li>• Understanding of competency/criteria</li> <li>• Understand what need to be demonstrated to be worthy of a pass/ identifying levels.</li> <li>• Accurate feedback</li> <li>• Inconsistency between assessors</li> </ul>	Pre 1986. Process of mentoring differs from the UK. Faculty assessing practice, e.g. lecturers, clinical tutors, practice educators or clinical teachers. Mentor role is exclusively advisory or facilitator. Classroom/simulation assessment. Non-English. Tool validation studies. Personal opinion literature.

Since integrative reviews synthesise empirical and theoretical literature to provide a comprehensive understanding of the phenomenon of interest, the decision was made not to limit the search to peer-reviewed literature to allow retrieval of all related material including organisational and governmental publications and reports. However, personal opinion articles were excluded.

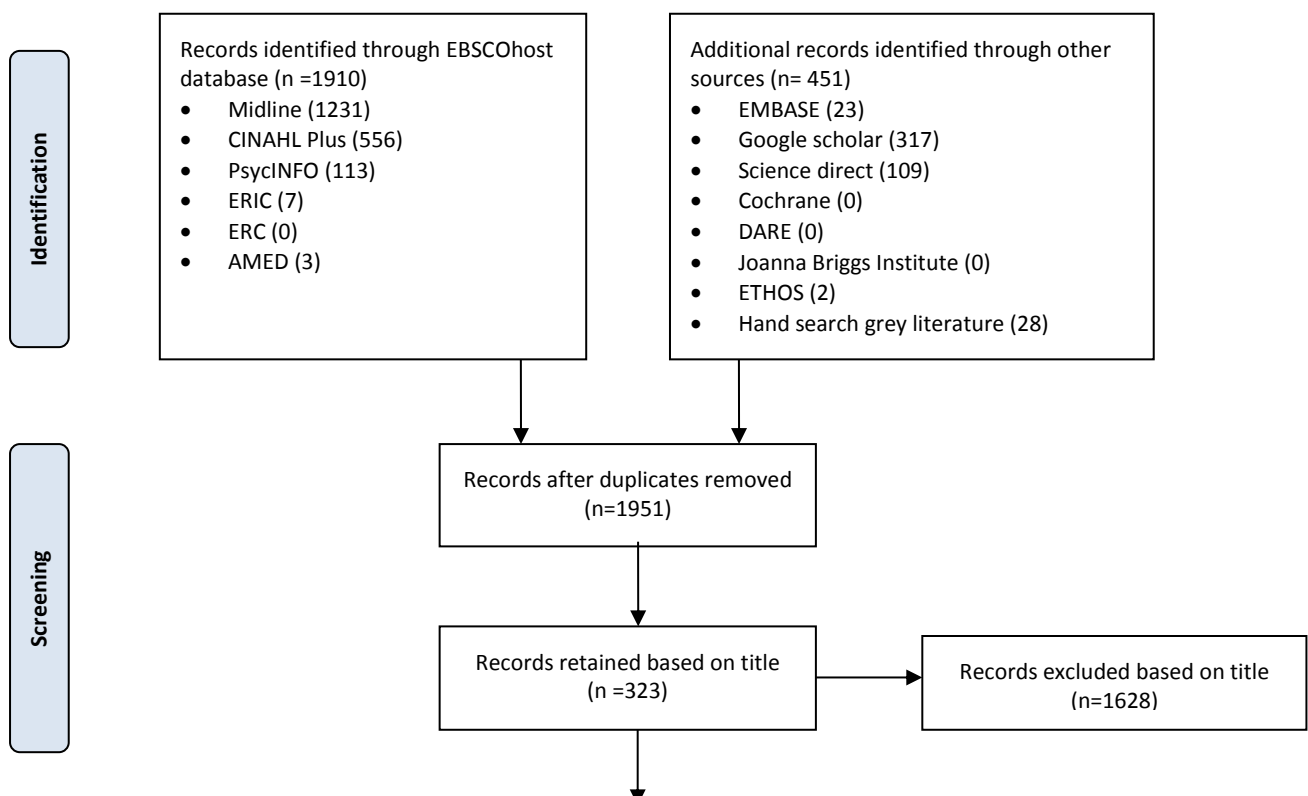
The literature search was conducted in September 2016 and followed an extensive and systematic approach across twelve electronic databases covering health and education related publications. Medline, CINAHL Plus, PsycINFO, ERIC, ERC and AMED were searched combined through EBSCOhost, and the remaining databases (EMBASE, British Nursing Index, DARE, Cochrane Library, Joanna Briggs Institute and EThOS) were searched individually.

Hand searching reference lists for relevant articles, and searching relevant education-health related journals (e.g. Nurse Education Today, Nurse Educator, Nurse Education in Practice, Medical Education) was conducted through their websites using subject-based search to identify literature not



picked up by databases. Grey literature including professional body and Department of Health databases were also searched. Additionally, the reference lists of included articles were also searched as well as using facilities in Google Scholar and Science Direct to search for related papers. Authors of the retained studies were contacted by email to identify any relevant papers including unpublished literature. Librarians with expertise in systematically searching databases were consulted in every stage to provide guidance and verification of the search process.

Based on the search terms and inclusion/exclusion criteria, the initial search resulted in 1910 records from EBSCOhost and EMBASE databases and 451 records from other databases and sources. After removal of duplicates, the total records identified were 1951. They were subsequently assessed for relevance based on title and abstract resulting in 27 records retrieved for full-text review. Eight articles met the inclusion and exclusion criteria for final synthesis. The process of refining and evaluating each stage is presented in Fig. 1 (Moher *et al.*, 2009).



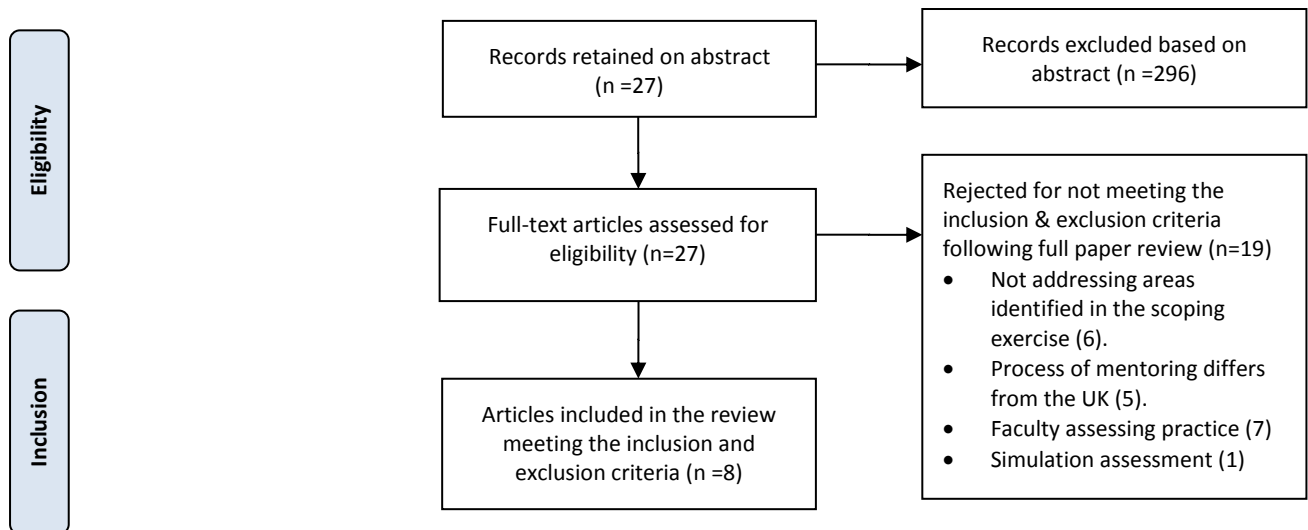


Figure 1: PRISMA flow chart showing article selection stages.

### Stage 3: Data evaluation

The data evaluation in the IR process aims to judge the quality of results and whether they are worthy of remaining in the dataset (Cooper, 1998). The eight studies were published between 2000 and 2012 and comprised one qualitative, one quantitative, one literature review and five mixed-methods.

Four studies were conducted in the UK. The remaining four originated from the Republic of Ireland (RoI) where mentors make decisions about fitness for practice, similar to the specific nature of mentoring in the UK. Three of the RoI papers (Butler *et al.*, 2011; Cassidy *et al.*, 2012; Fahy *et al.*, 2011) were drawn from different phases of one mixed methods study; for the purpose of this review each was considered separately since there were differences in the participants and methodology used in each study. The study by Neary (2001) summarised her PhD thesis (Neary, 1996) that was subsequently published in two parts in 2000 (Neary, 2000a; 2000b). Since all the publications refer to same study and reported the same outcomes, only Neary (2001) was used in this IR.

Critical appraisal of methodological features to evaluate the quality of studies in IRs is complex due to the inclusion of diverse primary sources. Since there

are no clear guidelines for evaluating research quality in IRs (Whittemore and Knafl, 2005), the Mixed Methods Appraisal Tool (MMAT) was adopted as it helps overcome challenges associated with assessing the methodological quality of heterogeneous studies (Pace *et al.*, 2012). MMAT has the advantage of providing clear and practical assessment of qualitative, quantitative and mixed methods research through using one tool only, with scores varying between 25% (meeting one criterion) and 100% (meeting all four criteria). When assessing mixed methods studies, the overall score should not exceed the score of the weakest method. The quality scores for the studies are included in Table 5. To enhance consistency, guidelines for a few generic quality criteria are included in the MMAT (Pace *et al.*, 2012; Pluye *et al.*, 2009).

Methodologically, the quality of the qualitative studies was moderate, ranging from 50% to 75%, with the most common criticism of qualitative studies being researchers not addressing their influence on data collection. Quality of the quantitative studies was also moderate, with the same range of 50% to 75% influenced mainly by sampling and response rates. Since the studies achieved 50% and above, in the absence of clear guidelines in the MMAT framework on the cut-off point for exclusion of studies, none of the studies was excluded based on quality.

#### Stage 4: Data analysis

This stage interprets and synthesises the evidence from the primary sources, and requires data to be categorised and summarised into an integrated conclusion (Cooper, 1998). Whittemore and Knafl (2005) advise that methods developed for qualitative analysis are particularly appropriate to the IR method where the similar data are categorised and grouped together. The steps of data analysis in IR comprises: data reduction; data display; data comparison; data conclusion and verification.

Data reduction and display involve logically extracting and classifying the primary sources data to enhance visualisation of patterns across all the primary sources and serves as the commencement of interpretation

(Whittmore and Knafl, 2005). The data extracted (Table 5) includes the conventional characteristics such as author, intervention type, study design, results and limitation. Specific to this IR, theories cited in the studies were also extracted in order to provide an integrated analysis.

Data comparison involves iteratively identifying and grouping similar variables to identify themes and relationships provided across the empirical and theoretical evidence. The primary sources were examined carefully to identify emerging themes with the same meaning. Three themes were identified:

- i. Difficulties with interpreting the language used within competencies.
- ii. Difficulties distinguishing between different levels of competence.
- iii. Difficulties articulating feedback regarding developmental needs to students.

Table 5: Description of the studies selected in the IR.							
Author(s)/ year & Country	Intervention type	Study population	Study design	Results/key findings	Limitations	Theoretical underpinning	MMAT score
Butler <i>et al.</i> (2011)  ROI	Explore mentors' views and experiences assessing nursing students.	Mentors (n=837) with over all response of 30.4% (n=255).	Quantitative Questionnaire survey.	48% of mentors disagreed that the performance criteria were clear. 50% of mentors said that there was no clear description of what is required in the competency statements. Mentors reported difficulties in identifying the knowledge, skills and attitudes required. Mentors found the language used in the PAD difficult to understand. The competency statements were 'broad, vague, difficult to interpret and poorly defined'.	Low response rate. Specific to one competency document. One geographical region in Ireland.	Competencies adopted Benner (1984) and Steinaker & Bell (1979).	75%
Cassidy <i>et al.</i> (2012)  ROI	Evaluate mentors' views of assessing students' competence	Mentors (n=16)	Qualitative Semis-structured interviews & guided focus groups discussions.	Mentors interpreted competency statements differently. Difficult to understand the language used for describing the performance criteria and the wording was not user friendly. Difficulty in assessing competence of soft skills (e.g. therapeutic relationships).	Small sample size  Specific to one competency document. One geographical region in Ireland.	Competencies adopted Benner (1984) and Steinaker & Bell (1979).	75%
Dolan, G. (2003)  UK	Investigate whether a revised assessment method is effective in measuring clinical competence.	Nursing students, tutors and clinical mentors  Total not clear (n=8 for content analysis).	Mixed methods: Qualitative (focus group) and quantitative (document analysis).	Inconsistencies identified in interpreting competency statements (students, mentors and tutors), or what exactly is required. Inconsistencies in the amount of supporting evidence required by assessors despite guidelines. Written evidence is not a guarantee for competence, mentors signed it without reading it. Mentors needed more training in assessment process.	No objective measure used as a comparison with the revised system. Content analysis findings not clear, mentioned other institutions document as potentially useful without exploring what was useful.	None specified	50%
Fahy <i>et al.</i> (2011)  ROI	Evaluate students' and mentors' experience of clinical competence assessment.	Focus group: 13 Students and 16 Mentors. Survey: 232 Students and	Mixed methods: Qualitative (focus group) and quantitative (Survey).	Students and mentors reported that the language used in the assessment document was difficult to understand. The language lacked clarity and required defining: too broad, vague and open to interpretations. Mentors understood the language better than the students but still had difficulty in making sense of the competence requirements.	Low mentor response rate. Specific to one competency document. One geographical region in Ireland. Further clarification	None specified	75%

		837 Mentors		Students felt challenged to figure out what is expected of them and preferred more specific competencies.	about recruitment of mentors needed.		
Giot, (2000)  UK	Examine if there is a difference between diploma and degree level competence and if it is possibility to measure it.	NA	Reflective literature review.	Clarification of academic achievements in practice assessment is needed. There is a paucity of research in relation to different abilities and expectations in practice. Practice-based-assessment is further complicated by difficulties in defining and measuring expectations in the real word.  Strategies to identify poor performance <b>are</b> not effective; vague terms and documents lacked clarity. Need to enhance practice assessors' verification of achievements in practice. Difficulty articulating high levels of achievement.	Not an empirical study.	Bloom (1956) taxonomy for the cognitive domain.	50%
Heaslip and Scammell, (2012)  UK	Explore if using a grading tool improves reliability of mentors' judgements of students' levels.	Convenience sample of students (n=107) and Mentors (n=112).	Mixed methods Questionnaire survey: Fixed and free response questions.	Grading enhanced mentors' abilities to be more discriminating in their judgments. Mentors were confident in grading practice but not confident in awarding a fail grade. Students reported variability in the way mentors use the descriptors. Inconsistency in mentors' and students' perception about the amount of feedback provided.	Convenience sample from one institution, difficult to generalise	Grading of competencies adopted Bondy (1983)	50%
McCarthy and Murphy, (2008) ROI	Explore the use of reflection to clinically assess students.	Mentors (n=970).	Mixed methods Questionnaire.	Inconsistencies with mentors' understanding of the assessment strategies. Mentors have their own way of interpreting competency statements, resulting in different approaches used to assess competence.	One university. Mentors responsibility to assess is recent. Qualitative responses may have added value.	Reflection models (Gibbs 1988 and Schon 1983).	50%

Near, (2001)  UK	Clarify students' and mentors' understanding of their role and preparation in the assessment process.	Interviews: students (n=70) 80 mentors (n=80).  Questionnaire student (n=155).	Mixed method  Semi-structured interviews  Questionnaire	Students experienced variations in practice-based assessment in relation to what should be assessed. Students and mentors did not know how to interpret the assessment criteria. Students and mentors negotiated their own objectives to cope with the messy language. Students valued constructive feedback to support the grades and that mentors should dedicate more time to the feedback process. There were inconsistencies in the way grades are awarded. E.g. not to give an 'A' on principle. The College grading systems varied and lacked clear meaning.	Methodology and analysis not clearly stated.	Taxonomies (Benner 1984, Dreyfus and Dreyfus 1980, Steinaker and Bell 1979 and Stake 1977)  Stake (1983) responsive evaluation model	50%
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i. Difficulties with interpreting the language used within competencies.

Six studies reported difficulties in the language used to describe competencies in the PAD (Butler *et al.*, 2011; Cassidy *et al.*, 2012; Dolan, 2003; Fahy *et al.*, 2011; McCarthy and Murphy, 2008; Neary, 2001). Mentors reported that language used was not user-friendly (Butler *et al.*, 2011; Cassidy *et al.*, 2012). Difficulty in describing performance criteria resulted in inconsistency in interpretation of competency statements (Butler *et al.*, 2011; Cassidy *et al.*, 2012; Dolan, 2003). Mentors struggled to translate competency statements in order to use them as assessment criteria, regarding them as “*broad, vague, open to interpretation and not sufficiently defined*” (Butler *et al.*, 2011, p. 301). Mentors and students agreed that the knowledge, skills and attitudes required to complete each competency lacked definition and clarity (Fahy *et al.*, 2011; Dolan, 2003; Neary, 2001). There was some acceptance by the HEIs that mentors have their own interpretations of competence (Dolan, 2003; McCarthy and Murphy, 2008).

ii. Difficulties distinguishing between different levels of competence.

Six studies reported problems associated with mentors' and students' ability to distinguish between different levels of competence (Butler *et al.*, 2011; Fahy *et al.*, 2011; Girot, 2000; Heaslip and Scammell, 2012; McCarthy and Murphy, 2008; Neary, 2001). The literature review conducted by Girot (2000) debated the meaning of 'competence' and identified a need for empirical research to compare different levels of competence in practice. Girot (2000) concluded that there are problems with the strategies and tools mentors use, resulting in unreliable assessments of students, putting patients at risk by allowing underperforming students to join the professional register (Duffy, 2003).

Assessment tools failed to provide clear descriptions of what was required and competency assessment frameworks failed to adequately assess students' competence (Butler *et al.*, 2011; Fahy *et al.*, 2011; Heaslip and Scammell, 2012) or level of performance (McCarthy and Murphy, 2008; Neary, 2001). They did not make mentors feel more confident about failing



students (Heaslip and Scammell, 2012). Heaslip and Scammell (2012) concluded that grading tools that can provide clear descriptors to discriminate between achievement levels are helpful.

iii. Difficulties articulating feedback regarding students' developmental needs.

Only two studies (Heaslip and Scammell, 2012; Neary, 2001) reported on the provision of constructive feedback to identify developmental needs and show students ways to improve their weaknesses or build on what they know. Both studies recognised that formal and developmental feedback provision is key to developing students' competence. However, Heaslip and Scammell (2012) and Neary (2001) found that mentors and students often differ in their perceptions on whether the feedback matches the grade awarded (Heaslip and Scammell, 2012). Students considered that mentors should devote more time to the feedback process (Neary, 2001).

Theoretical underpinning reported in the studies

Seven studies loosely referred to taxonomies used in assessment tools, mainly Benner's (1984), and the use of reflective practice in the context of assessment. The exception was Neary (2001) who developed the concept of 'responsive assessment' as a theoretical framework.

Reference to both Benner's (1984) novice-to-expert and Steinaker and Bell's (1979) experimental taxonomies was made in four studies (Butler *et al.*, 2011; Cassidy *et al.*, 2012; McCarthy and Murphy, 2008; Neary, 2001). Bloom's (1956) taxonomy was cited in two studies (Girod, 2000; McCarthy and Murphy, 2008), while Heaslip and Scammell, (2012) referred to Bondy (1983).

McCarthy and Murphy (2008) indicated that less than 50% of mentors knew or understood Steinaker and Bell's taxonomy or used it to help them during the assessment process. Similar findings were reported by Neary (2001) when Benner's (1984) novice-to-expert and Stake's (1977) 'countenance model' were used.

Stage 5: Presentation

The final stage in Whittemore and Knaf's (2005) framework requires moving from describing patterns towards higher levels of abstraction and synthesis to provide an integrated summary of the phenomenon.

Evaluation of the studies selected for review using the MMAT (Pace *et al.*, 2012) indicated the research quality was moderate. Apart from Neary (2001), studies lacked clear philosophical or theoretical underpinnings, therefore, methodologically, research into assessment of competencies needs to be stronger.

Descriptions of 'competent' and competencies need improving (Butler *et al.*, 2011; Cassidy *et al.*, 2012; Dolan, 2003; Fahy *et al.*, 2011; McCarthy and Murphy, 2008; Neary, 2001). There is a consensus that competency statements are often vague, open to interpretation and difficult to translate into assessable criteria. A need for clear and unambiguous language was identified (Butler *et al.*, 2011; Cassidy *et al.*, 2012; Fahy *et al.*, 2011).

There is no single uniform method of assessing competence in pre-registration nurse education resulting in inconsistency and difficulty in interpreting competency statements (Butler *et al.*, 2011; Cassidy *et al.*, 2012; Dolan, 2003; Fahy *et al.*, 2011; McCarthy and Murphy, 2008; Neary, 2001). The need for a collaborative approach to design clear and unambiguous language of competency assessment was recommended by several studies (Fahy *et al.*, 2011; Heaslip and Scammell, 2012; McCarthy and Murphy, 2008; Neary, 2001).

Problems and inconsistencies are also evident in discriminating between different levels of performance and in identifying the benchmark of what constitute a pass or a fail (Butler *et al.*, 2011; Dolan, 2003; Fahy *et al.*, 2011; Girot, 2000; Heaslip and Scammell, 2012; McCarthy and Murphy, 2008; Neary, 2001). These need addressing. Students need better clarity (Fahy *et al.*, 2011; Neary, 2001).

The assessment process needs improving. Mentors' quality of the assessment decisions are affected by the time available, the dynamic nature of nursing practice, and personal confidence and characteristics of the individual (Cassidy, 2009; Dolan, 2003; Heaslip and Scammell, 2012; Neary, 2001). While constructive feedback is a vital element in the assessment

process, inadequate consideration to feedback provision is evident (Heaslip and Scammell, 2012; Neary, 2001).

## DISCUSSION

This IR affirms the key challenges mentors face in interpreting and assessing levels of competency relate to:

- A lack of clear, unambiguous language in describing 'competence' and competencies.
- Inability to discriminate between different levels of performance.
- The actual process of assessment including feedback provision.

A variety of assessment taxonomies exist but clearly the problems related to ambiguous language and accurate identification of performance levels continue. There is a need for a suitable theoretical framework to underpin practice-based assessment. What emerges from the wider literature is that assessment does not have one overarching theory (Crisp *et al.*, 2003).

Consequently, a variety of theories from other fields, such as decision making and judgment theories, seem to be adopted (Schuwirth and Van der Vleuten, 2011). These particularly relate to summative assessment. Conversely, formative assessment, although reviewed in the literature under the umbrella of 'assessment', is usually viewed as part of teaching and learning, therefore draws on general education theories (Gray, 1993; Hays and Wellard, 1998).

Examining theories that underpin practice-based assessment identified a number of concepts and themes that they seem to share in describing what makes an ideal assessment. In Biggs' (2003) constructive alignment and Lave and Wegner's (1991) community of practice theories, there is great emphasis on integrating assessment with learning outcomes that involves examination of individual progress in relation to their starting point. The notion that assessment is an essential stage in the learning cycle (assessment *for* learning), rather than being an episode that gauges students' performance at the end of a course is gaining appeal by placing the emphasis on formative

assessments. In this framework, assessment fits with the constructivist paradigm of teaching and learning (Elwood and Klenowski, 2002), with assessment developing the students' performance, which is key to this learning paradigm (Wiggins, 1990).

Montgomery (2002) employed Wiggins (1990) 'authentic assessment', which involves assessing the application of process and product, arguing that accurate and fair assessment of both can be achieved through using understandable and transparent criteria known in advance by students and mentors. Thus, they can use a series of formative assessments and modify the work-in-progress. Montgomery (2002) stressed the importance of both students and mentors having access to the agreed criteria early in the process to focus both the student and mentor on the important content of the curriculum. Therefore, the student and the mentor can engage in meaningful learning by aligning instructions to assessment.

In support of this argument, Boud and Falchikov (2006) and Schuwirth and Van der Vleuten (2011) identified that the central purpose of educational curricula is for learning to take place, so constructively aligned assessment impacts positively on future learning through providing targets and feedback that focus and drive deeper learning.

The concept of assessment as a way of providing constructive feedback for learning emerged to challenge the traditional view that the aim of assessment is to judge whether a student passes a test (Ali, 2013; Haines *et al.*, 2013; Popham, 2001). Assessment *for* learning focuses on the formative potential of the assessment through individualised feedback on performance, and provides a continuum where improvements are documented in individual areas as moving from 'working towards competence' to 'competent' thus refocusing attitudes towards assessment as something that can facilitate learning rather than a process that highlights incompetence. Equally, summative assessment is also facilitated since the criteria for meeting or not meeting the required level to pass are clearly established (Frentsos, 2013; Montgomery, 2002). Schuwirth and Van der Vleuten (2011) explained that

'assessment *for* learning', in itself, is not a new theory, but more a change of views on assessment. Much of the theoretical underpinning to support this approach still needs developing and empirical research is lacking.

Another gap identified in this IR relates to the availability of appropriate tools and taxonomies to assist mentors and students in interpreting and differentiating between performance levels. Authentic assessment is frequently associated with the use of scoring rubrics (SRs), characterised by having clear, understandable descriptors applied consistently to determine students' level of performance.

SRs are distinguishable from other grading tools or checklists by clearly defined performance criteria written in an easily understood language. The level descriptors of each criterion are explained clearly to make the SR not only a feedback tool that enhances progress, but as a tool to judge performance too (Allen and Tanner, 2006).

Additionally, SRs facilitate objectivity in assessment by allowing students to understand the reasons for receiving the grade awarded, and provide formative assessment as both the assessor and the student know how to achieve the higher level, hence, facilitating individualised constructive feedback and self-assessment (Shipman *et al.*, 2012). Summative assessment is also achieved when SRs are used to determine the final grade as the criteria for meeting or not meeting the required level to pass is clearly established (Frentsos, 2013; Montgomery, 2002; Truemper, 2004).

A research review examining the reliability and validity of SRs in which 75 studies were appraised across many professional disciplines identified several benefits of using SRs in assessments (Jonsson and Svingby 2007). These include: improved consistency, facilitation of learning, and enhanced the validity of judgment decisions. The main conclusion was that reliable and valid assessments can be enhanced by using SRs. (Jonsson and Svingby, 2007).

SRs have been used extensively in academic settings but have not gained momentum in nursing, specifically in practice-based assessments; therefore, their benefits remain unrealised (Frentsos, 2013). Heaslip and Scammell, (2012) advocated the use and testing of SRs, and in a systematic review of grading practice within nursing, Donaldson and Grey (2012) concluded that although not fully evaluated, the most promising grading tool appears to be the use of SRs.

### CONCLUSION

What this IR highlights is that, to date, mentors are unable to understand the language used in practice assessment documents and this is likely to result in invalid and unreliable assessment of student's competence, which ultimately could result in unsafe students joining the professional register. So there is an urgent need to improve this process for public safety and develop a more robust method of providing feedback for learning to students.

Well-designed SRs with a transparent and common language to interpret different levels of competence might offer the solution to the challenges faced in practice-based assessment by helping mentors define what is expected of students and for students to identify what they are expected to achieve.

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